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Communication for Immunization and Polio Eradication in Zambia: A joint case study by CBOH, MOH, UNICEF, WHO/AFRO and USAID

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Contents

Acknowledgement

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To the many people who were interviewed and freely gave their opinions and views.

Acronyms

AFP	acute flaccid paralysis
CBOH	Central Board of Health
CSO	Central Statistics Office
DHMT	District Health Management Team
EPI	expanded programme on immunization
IEC	information, education and communication
JICA	Japanese International Co-operation Agency
KAPB	knowledge, attitudes, practices and behaviour
MCH	maternal and child health clinic
MOH	Ministry of Health
NGO	non-governmental organization
NHC	Neighbourhood Health Committee
NIDs	National Immunization Days
OPV	oral poliomyelitis vaccine
PCS	Population Communication Services
SNIDs	Sub-National Immunization Days
UCI	universal child immunization
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WRA	women of reproductive age
WHO	World Health Organization
ZIHP	Zambia Integrated Health Programme

Introduction

Purpose of study

This study is especially geared towards capturing individual country experiences with expanded programme on immunization (EPI), and National Immunization Days (NIDS) in particular, and exchanging/sharing them among African countries and even countries on other continents. It is designed to highlight good and innovative ideas that have been a success and challenges that most African countries are facing in their effort to meet the year 2000 eradication goal. This will help in developing effective strategies and activities that will help dispel rumours and increase interest and participation. Likewise, the information may be used to bring about a balance in social marketing/communication support for NIDs campaigns and routine EPI. Ultimately, the study may be used to support efforts in the development of a communications plan that integrates support for NIDs , routine EPI and surveillance for acute flaccid paralysis (AFP) and other diseases.

Dissemination of studies

This report was one of several lessons learned studies that were presented at the meetings of the Task Force on Immunization in Africa and of the Advisory Group for the Social Mobilization and Communication held in Harare, 6-8 December 1999. There will be a summary paper comparing and highlighting findings from all the studies, which will eventually be available in English, French and Portuguese.

Printed versions will be disseminated through the partners' regional and country offices. Electronic versions of the studies will also be available for downloading through the Internet, ensuring a wider audience.

Team members

External team: Guillaume M. Bakadi, Consultant/UNICEF; Grace Kagondu, WHO/AFRO; Nan Lewicky, Consultant/CHANGE
Central Board of Health: B. Matapo, C. Melele
Ministry of Health/Health Education: S. Makono, R. Chitanda
Universal child immunization: L. Chivundu

Methodology

The study was carried out through interviewing of key informants, reviewing of documents and observation. People interviewed included parents, teachers, religious leaders, members of the media, traditional healers and health staff and consultants. A list of questions prepared in English before the study helped guide these interviews. (Persons interviewed and documents consulted are found in annex A.) At the end of the exercise a briefing was held with WR, the World Health Organization (WHO), Health and Nutrition Director at the United States Agency for International Development (USAID). A briefing meeting was also organized, which the Central Board of Health, Ministry of Health, UNICEF, USAID/ZIHP, Japan International Cooperation Agency (JICA) and Rotary International attended.

EPI in Zambia

Historical context: Health reforms

In 1992, the Ministry of Health in Zambia initiated reforms in its sector by adopting a National Health Strategic Plan, the heart of which was the decentralization of the health care system. The plan aimed at improving availability, access, delivery and quality of an identified package of essential health services. An act of parliament saw the creation of the Central Board of Health (CBOH) and other autonomous boards: the District Health Management Boards and the Hospital Management Boards.

The health reforms encouraged close partnership with donors and through their cooperation, an innovative financing procedure of 'basket' funding was established. This scheme requires that donors fund centrally through CBOH rather than directly support particular districts or provinces**.** The CBOH then has more flexibility in fund allocations, leading to more efficient use of donor financing.

Unfortunately, not all donors have been enthusiastic about the scheme. There was concern that the funds would not be used for purposes for which they were intended. Other donors needed to search for ways to contribute to the fund without contravening their own reporting requirements.

Health reform in Zambia was initially focused on planning, and more recently on administration, finance and reporting. It is currently moving on to focus more on sustained quality improvement and especially the quality of communications.

The expanded programme on immunization

MOH and CBOH structure

The Ministry of Health (MOH) formulates policy for the health sector (e.g. strategic planning), develops health legislation, mobilizes financial resources for the system and handles external relations with bilateral and multilateral partners in health. It also fosters multisectoral collaboration with non-governmental organizations (NGOs), the private sector and other government agencies.

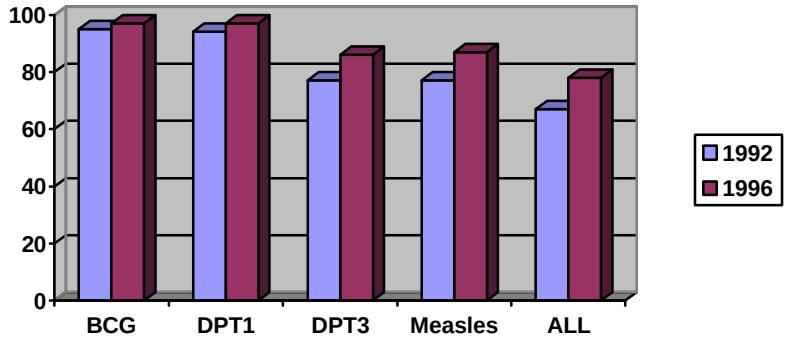
The Central Board of Health is the major institution supporting and overseeing the decentralization process. It is charged with implementing the health programme. Its functions include commissioning and developing support systems for health services and building the necessary capacity for the functioning of the health system. It is responsible for the interpretation of the policies and legislation. It generally coordinates activities in the sector and monitors, evaluates and provides technical support to the autonomous district boards.

District Health Management Teams (DHMTs) are responsible for the planning, delivery and monitoring of immunization services. They aim to increase the effectiveness of EPI through local planning to ensure that all the population has access to an immunization site at least once every three months. They are also tasked with providing adequate logistics to ensure availability of cold chain, vaccines and supplies at every scheduled session. The DHMTs have set up an effective surveillance system that provides monthly data on the sessions held.

Coverage levels

Zambia is one of the African countries that has managed to raise and sustain high levels of immunization. The figure below shows coverage levels for 1992 and 1996 as documented by the Zambian Demographic and Health Surveys (DHS).

However, even with the high national coverage, some districts still lag behind the national targets. Routine data from universal child immunization (UCI) indicates some districts with measles coverage as low as 24 per cent.



With current economic difficulties and competing priorities for health, the immunization programme has experienced several difficulties, including lack of transportation (especially for conducting outreach services), lack of health worker training, broken cold chain equipment, inadequate supervision and shortage of staff. All these factors are believed to have a negative impact on the coverage.

National and Sub-National Immunization Days

Zambia has conducted successful NIDs since 1996. Most of the districts achieved good results. In 1999, Sub-National Immunization Days (SNIDs) were conducted in those districts that achieved less than 80 per cent coverage, as well as the districts bordering Angola and the Democratic Republic of the Congo. The table below shows results since 1996.

Table 1: NIDs /SNIDs results, 1996-1999

Year	Intervention	Extent	1st round	2nd round	National average
1996	Oral polio vaccine	NIDS	86.2%	88.1%	87.15%
1997	Oral polio vaccine	NIDS	96%	87%	91.5%
	Vitamin A	NIDS	64%	–	64%
1998	Oral polio vaccine	NIDS	94%	99%	96.5%
	Vitamin A	NIDS	91%	–	91%
1999	Oral polio vaccine	SNIDS	102%	102%	96%
	Vitamin A	NIDS	–	75%	75%
	Measles	SNIDS	–	81%	81%

During the first year of NIDs (1996) only oral polio vaccine (OPV) was administered. In the next three years, vitamin A supplementation was added to the NIDs . In 1999, the measles vaccine was administered in four urban high-risk districts in addition to OPV (in 36 districts) and vitamin A (in 72 districts).

There has been an increase in coverage in subsequent years and this can be attributed to increased community participation and awareness achieved through social mobilization and routine immunization services. Improved management skills of health personnel due to past years' experiences have also played a positive role.

Results from all four years unfortunately show some discrepancies between the Central Statistics Office (CSO) and the district head count. These inconsistencies have yet to be resolved.

The eradication effort in Zambia is currently facing the following constraints: inadequate and/or late arrival of funds for vaccines prior to campaigns; and the late arrival and delayed distribution of vaccines, syringes and social mobilization materials. There have been shortages of vaccine carriers and, in 1999, the vitamin A capsules that had been donated for the NIDs never arrived!

There have been contradictory posters/messages relating to age group for vitamin A and measles, and time allocation for district staff and lay vaccinators' training has not been adequate. The

inability of the NIDs secretariat to conduct physical checks on actual implementation at district level has hampered appropriate contribution to future NIDs .

Use of committees

Committees have become an integral part of EPI, as well as the entire Zambian health care system. Committees are formed for strategizing, fund-raising, planning, implementing and monitoring EPI NIDs and routine activities. This practice permeates all levels of health delivery from the central to the health facility to the community levels.

Central Level

- **Child Survival Committee:** The Interagency Coordinating Committee (ICC) has recently been broadened and renamed the Child Survival Committee. This reflects the wider agenda to be addressed by the group. Members consist of the donors to EPI: UNICEF, USAID, WHO and JICA. Currently, the committee is not very strong as it does not benefit from high-level participation.
- **Social Mobilization Committee:** The SMC has intersectoral membership, functions only for NIDs and is disbanded as soon as NIDs are over. Many of the members have been on the committee for the last four years.
- **Intersectoral Coordinating Committee (ICC***)* is composed of 14 members from the line ministries, including education, information, defence and agriculture.
- **Information, Education and Communication (IEC) Subcommittee:** This committee was initially set up at the initiative of ZIS and has intersectoral membership. It primarily addresses population issues. It has the potential to address immunization issues especially as some of the members belong to the NIDs committee. Within it is a working group of communication professionals who give direction on technical issues.
- **Emergency Preparedness Committee:** This recently established committee has intersectoral membership, various subcommittees (including for public education and mobilization) and is replicated at district and health facility levels. These committees have great potential for promoting surveillance.

Provincial/regional level

- **NIDs intersectoral committees** address all aspects of NIDs planning and implementation. They are especially crucial for resource mobilization.

- **Emergency Preparedness Committees**
- **Health Centre Committees** composed of representatives from the neighbourhood committees work with health centre staff in planning NIDs .
- **Neighbourhood Health Committees** are composed of elected volunteers by the community of a given health zone.

Health education/promotion for EPI

The Health Education Unit within the MOH provides the technical coordination of health education for EPI at national level. Other tasks include developing technical guidelines, capacity building, research, monitoring/evaluation, developing material, advocacy, interagency collaboration and alliance building.

With the health reforms, the unit has been operating at the national level only for advocacy, policy development, training, national development and interagency sensitization. It participates in all planning and implementation of the EPI health education programmes**.**

The EPI health education programme provides technical support to the Universal Childhood Immunization (UCI) secretariat of the MOH. The UCI secretariat provides the integrated plans of action for national-level EPI operations. The districts and provinces provide the integrated plans of action that are discussed and approved at the annual district planning meeting where the budget is allocated.

In the current CBOH structure, one health promotion specialist operates at national level and one in each of the four health regions. The structure at provincial and district level has no designated position for health education and health promotion. Rather, it is the Manager for Planning and Development who is currently taking responsibility for any integrated programme implementation, including EPI.

UNICEF, through the Communication division, provides substantial technical support in planning and implementation. UNICEF also provides financial support to districts. USAID, through the ZIHP project, is the other key player in communication and social mobilization. Rotary International has been a key supporter of social mobilization for NIDs with involvement of all the clubs throughout the country.

Major findings

Routine immunization

Effective and creative actions/what has worked

Basic education/level of awareness: Zambia is recognized throughout Africa for its sustained high levels of immunization coverage. Among the reasons attributed to such success is the people's positive attitudes towards immunization, as indicated by the fact that people not only accept but demand that children be vaccinated. In addition, reported new cases of measles cases during the last few years have prompted the caregivers to seek out the services, as many are aware of the severity of the disease. The intensive immunization mass campaigns conducted in the last four years for polio NIDs has also contributed substantially to reinforcing what many caretakers and the general public know and value about the importance of preventive services. Almost all administrators, planners and health workers (from the Central Board of Health down to the community health worker and the village chief) were adamant that the Zambian people not only accept but also demand that their children be immunized. It appears that the population as a whole has received adequate education on the importance and value of preventive immunization services. This basic level of understanding apparently comes from a variety of sources, including schools, churches, health staff and community. This high level of awareness helped with easy acceptance of polio eradication by the population. The extent to which some of the communities take immunization seriously is illustrated by one community in Kabwe district, which passed a resolution to charge K 500 for any defaulters.

One reason behind this phenomenon may be the 'institutionalization' of the under-five immunization card. As in most countries, mothers are issued this card when their child is born. In Zambia, however, the card has become a valuable tool and the basis for providing comprehensive education to caretakers on child health. Mothers carry it with them whenever they take the child to a clinic, and closely follow the instructions as to when their next vaccine or weighing is required. The cards are often put in plastic covers to protect them and are treated as important documents. In some cases, the cards are even used as a form of identity, necessary to register a child for school, and are even admitted in a court of law as evidence of one's nationality. Even those mothers who give birth at home reportedly know the importance of the cards and will present their children at a health facility to receive a card after they are born. Since the national health reforms, these cards are being produced at the national level but need to be purchased by

the individual health centres. Some health centres are able to give the first card free of charge and request a minimal fee (K 500) to replace a lost card. Other centres require that even the first card should be bought. In spite of this, mothers still continue to purchase the cards and consider them a non-optional part of their family's health care costs.

However, currently there is not much ongoing in terms of continuous education on routine immunization besides the information give at the maternal and child health (MCH) clinic. Unless this situation is reversed, the high levels of education may not be sustained with new age groups and other target groups besides the mothers who attend the MCH clinics.

Community involvement/partnership: Community involvement in Zambia is very strong in all aspects of primary health care delivery, including the promotion of immunization. Neighbourhood Health Committees (NHCs) play an active role in such matters as the development of the DHMT action plans, the use of user fees at health facilities and the development of educational programmes within the community. While routine immunization does not take as urgent a place as cholera in the community, nor as visible a place as National Immunization Days, it nonetheless is reportedly given weight by the NHC when decisions are made on whether to purchase vaccines or replace faulty cold chain equipment. The NHC plays an important role in promoting immunization in the 'neighbourhood'. Several of the parents interviewed said they preferred and trusted information from the NHC members as they "live with them and trust them."

District planning: The districts are required to produce yearly action plans for all their activities, including health promotion and education. The districts that were visited had produced such plans, and each included a section on EPI and surveillance. The corresponding activities and budgets included such items as outreach/health promotion, utilization of traditional media and production of materials. Many districts invite other partners in immunization to participate in the planning or to give feedback. For example, the DHMT in Kabwe reported that they normally organize a day's workshop for stakeholders – NGOs, line ministries, the council, etc. – to share the plan and get feedback.

Integrated communication plan: An integrated communication plan was completed in early 1999 following the regional training and planning workshop in 1998. The plan was developed

with the participation of other agencies and programmes and integrates the essential health package programmes.

Monitoring of immunization coverage: EPI has the most updated information system at the health centre. Most of the health centre staff know how to measure the immunization coverage for each antigen based on the target population and number of children immunized each month. Usually, such information is presented in a graph that is displayed on the wall. Unfortunately, such information is used for reporting only and is never used as an assessment and motivation tool to stimulate actions towards improving immunization coverage.

Major challenges/what to improve

Little advocacy/low priority for EPI: With the onset of decentralization, the districts have been required to make difficult decisions as to how best to utilize their limited funding and staff. This is especially challenging with such crucial health issues plaguing the nation as cholera, malaria and HIV/AIDS. Routine immunization must often give way to those emergency health issues or be integrated into a broader maternal health care package. To this end, little advocacy is taking place at the provincial and district levels to convince the stakeholders to increase the share of resources allocated for routine immunization. This may be confounded by a widespread belief that polio is no longer a major health problem in Zambia. Furthermore, it may be felt that immunization efforts are being taken care of sufficiently through the NIDs campaigns, which are a centrally planned activity with ample funding, staff and resources

Lack of demographic data for planning: It is unclear if the planning that occurs at the central and district levels has adequately incorporated the recommendations made to date from previous programme reviews. For example, the report of the review carried out in 1997 has yet to be disseminated and discussed with districts. It is also unclear whether there exists adequate demographic and knowledge, attitudes, practices and behaviour (KAPB) data on the low-coverage populations to develop a focused communication strategy and action plan.

Funding and transport for outreach activities: Outreach services, which are needed to reach remote populations without access to health services, have been an integral activity of the EPI programme. Currently, neither transport nor funding is readily available on a routine basis for such outreach work to continue either at the DHMT, facility/hospital or the community level. The DHMT officers often do not have properly maintained four-wheel-drive vehicles necessary to

reach some hard-to-reach areas and the health facilities, and community health workers lack the motorbikes or bicycles needed even to do house-to-house immunization on a routine basis. As health education is an integral part of outreach services, it means that communities are denied the education as well as the vaccinations.

Mothers who come from far away reportedly often bring their newborns for routine immunization but have to leave their other under-fives at home due to lack of ability to carry all of the children, a further justification for outreach.

In such a tightly funded programme, it is hardly surprising that any additional funding which can be found, is more likely to be applied to vaccine or equipment needs, rather than to additional educational materials or social mobilization interventions.

Low priority for communication needs in EPI (inadequate staff and training): General staff shortages and shortages of trained health promotion staff are barriers found at all levels of the health system. At the central level, there is only one person located in CBOH in charge of all communication activities, including strategy design, training development, monitoring and evaluation. At the MOH, capacity is limited, and funding is restricted to allow for effective project planning and supervision or adequate material production. EPI communication support to UCI is provided by the personnel at CBOH and the Health Education Unit of the MOH. There is no specific focal point assigned to EPI communication at the UCI unit.

The current restructuring at the provincial level has made regional input into health education and promotion extremely limited as there is no longer a focal point at the provincial level. The focal person at the region is too over-extended to be effective.

Health reforms have also left the district level with a void in staffing for health communication. While the person responsible for health education and promotion should be the Manager for Planning and Development, in practice this person is often not trained in IEC and/or has too many other responsibilities to be able to dedicate much time or commitment to IEC activities. For this reason, much of the burden of health communication in EPI has been left to the health facility staff and the neighbourhood health committees. This has been shown to work well during intense campaign efforts such as NIDS, but is much less effective during routine immunization.

Aspects of communication are integrated into some management-level courses organized for the DHMTs, such as the integrated competency training and the diploma course on management. However, training on communication planning is a weak area.

Training for health facility staff, neighbourhood health committee members and community outreach volunteers is also lacking in many parts of the country. Most training is being funded through NGOs and donor agencies, but seems to be limited to certain 'pilot districts' or concentrated programme activity areas. The MOH is not currently carrying out any training for community-level health education workers.

Skills upgrading to a large extent depends on the initiative of the DHMTs. For example, Kassama district has periodic capacity-building workshops for the health facility staff and topics are chosen according to district needs, such as how to improve social mobilization. The district has also designed a programme and written a training manual for community-based health promotion.

The MOH is willing to train community-level health workers, but no agency has pledged to support this activity. Currently, WHO is supporting district training of health communication focal points but not the community-based personnel.

Lack of educational materials and support activities: Educational materials for routine immunization are virtually non-existent. The limited budget available for material production within EPI has to date been put towards the development of posters and radio promotion for NIDs materials and left aside in the promotion of routine EPI. The implication of this situation is that there are no support materials to reinforce routine immunization on an ongoing basis. Educational materials would also provide the health workers with some motivation.

Outside of the education given by health staff during immunization, there are hardly any other ongoing activities, especially community interpersonal methods. Thus, information on immunization reaches only the caretakers and leaves out other key important secondary audiences such as family members and community leaders who would have an influence on behaviour of caretakers.

Reaching the hard-to-reach: Many hard-to-reach and hard-to-convince populations were identified during NIDs/SNIDs exercises, as will be discussed below. During NIDS, these

populations were reached with increased resources and transport provided specifically for the campaign. The challenge now will be to incorporate these populations into routine immunization. Some DHMTs interviewed stated that they have not been able to reach some of the same people again, even during the subsequent NIDs campaigns, mainly due to the reasons discussed before: lack of funds, transport and staff.

Challenge for 'vertical programmes': Health reforms have emphasized the importance of integrating maternal and child health (MCH) programmes in terms of planning and resources. This of course poses a problem for programmes that are traditionally seen as vertical programmes.

NIDs/SNIDs

Effective and creative actions/what has worked

Advocacy: High-level advocacy was used to convince stakeholders to get involved in the planning and implementing of NIDs activities. The Secretary of the Cabinet wrote a letter to all Ministers and Provincial Secretaries instructing them to be involved. They in turn instructed the lower levels. A briefing paper was written for Members of Parliament and submitted through the Clerk of the National Assembly. Media personnel attended a sensitization workshop and received regular briefings before and during the NIDs . Meetings were held with Rotary International's Polio Plus Committees. Advocacy meetings were conducted for line ministries, NGOs, religious leaders and other influential leaders. Personal visits and briefings were made to private businesses, embassies, etc.

Working as partners: Implementing NIDs has tremendously helped stakeholders to experience how a common goal can bring people to work together and succeed. From Lusaka to the provinces and districts, committees and subcommittees were created to coordinate, plan, implement and evaluate NIDs. Rather than being seen as an idea from the outside, the NIDs were perceived as a national event that needed contribution from everybody, including the government, NGOs, international donors, community-based structures and community members. The success achieved for almost all districts in immunization coverage during NIDs has built confidence among stakeholders and enhanced skills in planning and mobilization.

The Social Mobilization Committee was the focal point for planning and coordinating IEC activities amongst the many NIDs/SNIDs partners. Chaired by the MOH, it had representatives from various agencies and ministries with communication and mobilization expertise.

The intersectoral committee made up of representatives from key line ministries closely complemented the work of the Social Mobilization Committee. The biggest benefit of this committee was that it was able to motivate support of the ministries at district level. For example, the representative from the Ministry of Education would ensure support of the ministry at the other levels. Ensuring that members of the intersectoral committee participated in monitoring and supervision not only helped to reinforce other levels but was a motivating factor for the members. At provincial and district levels, intersectoral committees ensured that NIDs were a success by mobilizing resources. At the community level, the neighbourhood committees were the primary movers.

Literally every Zambian joined the effort to make the NIDs successful. This partnership enhanced DHMTs' teamwork and motivation. "It's like PHC [primary health care] in action," remarked a member of a DHMT.

High level of government commitment: National and Sub-National Immunization Days in Zambia are well-funded, high-priority and high-visibility international activities. They received an enormous amount of time, effort and staff from Ministry of Health as well as other government ministries. NIDs brought together all sectors of the government to work as a team in planning, sharing of resources and implementation. Social mobilization efforts were seen by all as an integral part of NIDs and subsequently were amply provided for in the budget. This was facilitated through direction from the central level, CBOH, MOH and even the Minister herself. In addition, staff was made available for vaccination, and vehicles were donated from other programmes.

Commitment at the provincial and district level was key in the NIDs success story. In all provinces, it was reported that the involvement of the private sector made all the difference. In Ndola, for instance, the private sector commitment helped secure 25 cars for transporting staff, supplies and promotional materials. In Solwezi, it was reported that without the private sector support, many institutions may not have released their pledged contributions.

Good planning at all levels: Planning for the NIDs was undertaken at all levels, from national to the community, and was carried out by the committees in partnership with the health workers who have been described above. Training and planning workshops were organized. The guidelines provided for the planning by the central level helped to make it successful. Planning over the years also builds on previous experience. In Kabwe district, for example, one of the key issues was identifying hard-to-reach and hard-to-convince groups and developing strategies for reaching them in advance. One reason for the successful planning was the clear guidelines given to all levels with specific suggestions for activities and tasks at the various levels.

Community ownership: Wide participation and management of NIDs by varied community partners was instrumental in the success of NIDs in each district. As discussed, the Neighbourhood Health Committee played a major role in the development of each district plan. Beyond the NHCs, however, partners included religious groups, women's groups, community-based distributors, community health workers, traditional birth attendants, traditional healers, breastfeeding support groups, safe motherhood groups and growth-monitoring promoters.

Health promotion training and guidelines: Training during NIDS, from the central level to the volunteers in the village, was seen as a necessary strategy in improving both management and service delivery. Workshops were held for all Social Mobilization Committee member partners (including DHMT, health workers and volunteer vaccinators) on resource mobilization, message dissemination and vaccine handling. Training on communication and social mobilization included key messages, activities, target groups and the channels and messages to use. The national level issued additional guidelines on specific issues to support district social mobilization such as guidelines on dealing with rumours and dealing with the media.

Multiple channels of communication: The promotion of NIDs was accomplished through a thorough mix of mass media and interpersonal channels. The slogan "Bye Bye Polio" was chosen to express the need to get rid of the disease for good in Zambia. In terms of mass media, CBOH/MOH, with support of partners, produced radio and television spots, posters and stickers. In order to differentiate to the target audiences where the varied interventions (of OPV, vitamin A and measles) were to occur, many of the materials announcing specific vaccines were produced in the vernacular language corresponding to the districts where those vaccines were to be given. Radio announcements in local languages were also used to target messages to specific groups.

Interpersonal channels of NIDs promotion included local leaders, religious leaders, school pupils, drama groups, peer educators and market announcements.

Role of the school pupils: School pupils are singled out as having played a major role in NIDs participation. They took messages home to their parents and disseminated messages in the community through drama. Primary-level pupils were more effective in mobilization, while the older high school students served as volunteers at immunization posts. Pupils' importance in NIDs was so instrumental to their success that dates for NIDs had to coincide with the school term.

Promotion of routine immunization during NIDS: The NIDs campaigns were somewhat utilized to promote routine immunization to the population. Messages were incorporated into the print materials and also in the training manuals for vaccinators, with an emphasis on reminding caretakers about the need for and schedule of receiving regular vaccines. Another message that was strengthened was the safety and importance of immunizing a child even if that child is sick. A 1998 survey to determine the impact of NIDs on routine immunization noted that 85 per cent of volunteers reminded mothers to return for regular immunization. (Only 40 per cent did so for vitamin A.) However, improvements in education are still needed, as will be discussed later.

Reaching the hard-to-reach and hard-to-convince populations: There were a number of populations that, even with the additional funding, transport and staff, posed a problem in reaching during NIDs. Most of these populations were identified early during the campaign and as a result were able to be included through additional efforts and perseverance. The most effective measures taken were having vaccinators bring the vaccines to the caretakers, often moving 'house to house' to reach the missing children. Some of these groups included:

- groups of farming communities who were migrating to their distant farms for cultivation during the NIDs period. The communities were subsequently tracked down by a team of DHMT outreach vaccinators.
- a Chinese commercial farm (Serenje) that did not allow its workers time away from the farms to attend the NIDs/SNIDs campaign. The manager was finally convinced to participate with pressure from the DHMT.
- Jehovah's Witnesses (Watch Towers), who do not accept the introduction of foreign blood into their body. Some of them felt that immunizations were not acceptable and were

especially worried when the vitamin A capsules (which were red in colour) were introduced into the campaign and mistakenly thought to contain blood. Additional sensitization meetings were set up at the community level and door-to-door promotion was done by the outreach workers to combat this misunderstanding.

- Apostolic Church, a group that does not believe in the use of Western medicine. Paradoxically, almost all of their children were vaccinated during NIDS. It was noted that many of the members actually did want to participate in the campaign but were worried about the reaction of their fellow members. Vaccinators overcame this problem by staying late so that these members could come for immunization when fewer people were there to see them. In Serenje, this group was holding a seminar during the week of NIDS. The vaccinators ended up moving their post to the location of the seminar to reach the members.

An important lesson with the hard-to-convince groups was targeting strategies depending on the nature of the group. For example, in Lusaka, an effective strategy was pushing leaflets over the 'high walls' behind which the elite lives.

Modifying strategies to increase coverage: Health workers and volunteers discovered the importance of modifying strategies early enough when turn-out at the post was not good. The use of the house-to-house strategy was reported by some districts to increase coverage by as much as 50 per cent in poorly performing areas.

Combating rumours: Certain rumours that permeated the population hurt the NIDs/SNIDs campaigns and required that additional efforts be made to educate the population. The most common one was that the polio vaccine causes impotency among the children. Other rumours cited were that the vaccine contained family planning or the HIV virus. When these rumours surfaced, they were mostly handled at the community level, through intensified health education by outreach workers and door-to-door immunization efforts where feasible. Written guidelines were distributed to the districts on how to handle the rumours. The central EPI managers had designated one person to be the spokesperson for all EPI information and made it clear to the provincial, district and health facility managers that all inquiries must be channelled directly to that person for any official comments. The districts were subsequently instructed to intensify their interpersonal communication, through door-to-door visits and the use of religious leaders, chiefs and other 'influence brokers'. Ultimately, it was reported that the rumours did not have a major impact on the population.

Major challenges/what to improve

Late logistics and material production: The main problem cited at the district and health facility was a problem of timeliness in planning and logistics. Announcements of dates, funds and logistics arrived very late to the districts, allowing them little time for social mobilization and planning. This becoming an increasingly demotivating factor, especially in terms of support from other sectors.

Interagency coordination: A certain degree of under-collaboration between partners caused problems in terms of message development and materials production during NIDs. The national decision was made to develop all messages at the central level "to promote (5?) days of NIDs to all children 'under five' regardless of the intervention being provided (OPV, Vitamin A, measles)." The agency that had offered to produced the vitamin A materials, however, produced their messages for an under-six population, citing "x days for a nation-wide vitamin A campaign." This caused a bit of confusion at the community level, when mothers arrived for polio vaccine and found only vitamin A being offered, or arrived with an above-five child and were told that their child was too old to receive the vaccine.

Realistic resource allocation: A few of the districts complained of a problem with realistic reporting from central level of the amount of funding available for NIDs. Some districts planned their NIDs/SNIDs action plans with certain funding expectations, then were disappointed when the funds arrived late and were substantially less than expected. Districts were then obligated to shift funds from other programmes (particularly routine immunization) in order to meet the campaign needs.

Motivation of health workers (use of volunteers): Certain districts felt that volunteers were more effective during NIDs than were regular health workers. Health workers often required additional motivation in terms of extra allowances or were reluctant to travel far distances to carry out house-to-house visits. However, volunteers tended to be more willing to work without pay or even to stay overnight at a mobile post when transportation was not available. Medical student volunteers were found to be particularly enthusiastic and reliable and should be continually utilized in subsequent campaigns, especially for such immunizations as measles, where non-trained volunteers are not suitable.

Messages to caretakers: Mixed views were expressed as to whether or not NIDs messages actually confused mothers as to the continued necessity for routine immunization. Some health workers interviewed felt that caretakers thought NIDs replaced routine immunization and that coverage rates would subsequently decline. Other health workers felt strongly that caretakers understood quite clearly the need for continued routine immunization and that NIDs were an additional boost for promoting vaccine coverage.

Certainly, the messages need to be improved. The 1998 survey revealed that "There were major weaknesses in the amount and accuracy of key messages conveyed by volunteers on NIDs , routine immunization and vitamin A: less than 45 per cent of caretakers knew the date for the second round; 53 per cent of the caretakers said they were not reminded about routine immunization; 71 per cent of caretakers did not know when to bring children for the next dose of vitamin A."

Messages for multiple antigens: There was some confusion regarding messages for the different antigens (e.g. target group) for vitamin A. Certain districts that were not targeted for NIDs showed up at UCI to collect vaccines. There is a need to start messages early so that they can be monitored.

NIDs fatigue: Some amount of NIDs 'fatigue' appears to be setting in, especially among donors, as expressed through the statement "we thought NIDs were time bound but now have continued for four years." This is further frustrated by the fact that it is not apparent how long Zambia will continue with SNIDs, given the situation with neighbours. The challenge will be to explain the need and interrelatedness of the various activities – NIDs , SNIDs , surveillance and mop-up.

Sustaining support of other sectors is becoming a real challenge, especially mobilizing resources such as transport.

Surveillance

In 1998, 26 cases were reported as AFP and investigated in the UTH virology laboratory for the presence of wild polio virus. This was a great improvement on the previous year, when only seven AFP cases were reported. This year, more progress has been made with all surveillance officers actively searching for AFP. This has paid off and 61 cases have been reported.

Effective and creative actions/what has worked

A revolving fund for reimbursement of transportation costs was set up at the Virology laboratory with support from WHO. This fund, which is used to reimburse personnel for costs incurred in the transportation of stool specimens, aims at encouraging the timely transport of the specimens and, in turn, timely isolation of the wild polio virus – thereby ensuring an immediate and effective response to any imminent polio outbreaks.

A Polio Expert Committee has also been set up to guide CBOH in the polio eradication drive. The committee is responsible for classification of all reported cases of AFP. The committee, which in the past met monthly, will in future meet only on a quarterly basis.

There is good collaboration with surveillance, EPI and lab staff, and district lab staff countrywide are being trained in AFP surveillance, specimen collection and transportation. There is a marked improvement in data management and timeliness in reporting of the data.

Channels of communication are being exploited to good effect, such as using meetings organized for other purposes to discuss surveillance. A 'Polio Day' was a great success in one district as part of clinician sensitization. Also, the idea of presenting certificates to districts identifying AFP cases as a form of encouragement is a good source of motivation.

Major challenges/what to improve

One of the major challenges to AFP surveillance is the lack of support from local authorities at various levels where it is not considered a priority. The sensitization of clinicians has not yet been completed.

The expansion of laboratory activities in research and public health work and the sudden departure of lab technicians in a period of three months resulted in a heavier workload for polio technicians delays in sending back results. The technicians lacked motivation, as there was no incentive offered in spite of the increased workload.

It is generally difficult to communicate with surveillance officers because of the lack of telephones. During a certain period late last year (1998) and early this year, the lack of vehicles greatly hindered the laboratory's activities.

Improved reporting at health facilities: Active surveillance did not really take off until 1998 with the hiring of five officers by WHO who are posted with CBOH. Activities have so far been concentrated on sensitization of clinicians. Training has yet to reach the staff at the health centre level, many of whom were found not to be aware of AFP surveillance. Such training therefore needs to be planned and implemented quickly.

Community participation: AFP surveillance has yet to be initiated at the community level. The community-based structures in Zambia – especially the various committees described earlier – should be assets in mobilizing community members in the identification and reporting of cases.

While public involvement in reporting AFP cases has been integrated into the training manuals and in some of the educational materials for NIDs , no activities whatsoever have been planned to involve the community outside of the NIDs .

Recommendations

Giving feedback to the community, district and province

Besides serving the reporting purpose, EPI information should be used as a motivational and planning tool for the community. Feedback on the immunization coverage should be given to the community through the community based structures that exist as a way to assess their effectiveness in social mobilization. In addition, such information can be used by catchment areas to compare among themselves and as a motivation technique to stimulate participation among communities. Improving feedback to the provincial and district levels on routine immunization and surveillance may assist in 'capturing the NIDs /SNIDs competitive spirit' and encouraging continuous reporting of EPI data to the central level.

Improved collection of reliable data

Research and evaluation of cost-effective methods of communication

During NIDs , many methods and channels are used as described above. This is done at great expense. It is important to conduct an evaluation of which methods are most effective.

Training of service providers and community mobilizers in interpersonal communication

As the responsibility of health promotion and education is now being laid upon the health worker, it is extremely important that appropriate training be provided on interpersonal communication skills. It is often mistakenly assumed that health education and general interpersonal skills come naturally to health providers. This is often not the case, especially when the health providers are overworked, undermotivated and undercompensated for their services. In Zambia, a lot of community education is carried out by volunteers. They too need some communication skills. An added benefit will be the motivation provided through the training.

Reactivate the structures used during NIDs

Most if not all structures used during NIDs tend to fade after the campaign. This is especially so at the national level. Ways should be found to reactivate them or sustain them for routine immunization, surveillance and other child health issues. Key among these are the social mobilization and intersectoral committees.

The following are some strategies for sustaining and motivating participation beyond the NIDs:

- Use of non-monetary motivation such as letters to recognize people's participation
- Involving members of committees in supervision, training and workshops
- Including routine immunization in regular agenda. It is especially important that the evaluation meeting held after the NIDs includes discussion on how to continue involvement of partners in routine immunization and surveillance after the NIDs
- Giving people regular feedback and updates on information on immunization to sustain interest
- Regular briefings of the media on all aspects – maintaining the partnership
- identifying roles that the various partners (NGOs, schools, drama groups, local leaders etc.) can play

Maintaining services for the hard-to-reach populations

CBOH and partners need to work with DHMTs to plan for sustaining services for the hard-to-reach populations discovered during NIDs . This would include support in district micro-planning and additional resources.

Capacity building for communication

Build communication capacity by strengthening the structure, such as appointment of focal points in the provinces and districts, as well as by updating skills, especially at district level and especially communication planning skills.

Coordination of partners' efforts

Partners need to coordinate better in order to maximize on resources. One way to strengthen this coordination could be an assessment at national and district levels to establish what is going on and who is doing what.

Communication for surveillance

Health workers, especially at health centre level, need training on surveillance. Also using the potential that exists in involving the community in reporting cases.

Year-round messages and activities on immunization

Basic messages on immunization need to be disseminated all the time, through multiple channels. Some of the efforts could include ensuring development and dissemination of educational materials and regular radio programmes.

Annex A: Persons interviewed

List of people met

Dr. G. B. Silwamba, CBOH Director General
Dr. Edwards T. Maganu, WHO Representative
Dr. Limbalambala EM, Director Monitoring and Evaluation
Elizabeth Serlemitsos, Chef of Party, the Zambia Integrated Health Programme
Peter McDermott, UNICEF Country Representative
Claire Blenkore, Communication Officer
Christina Roddett, Health Section/UNICEF
Samuel S. Kambangu, Zambian Information Service
Kepson Zimba, Ministry of Agriculture
Mr. Mubiana, Health Promotion Specialist, Ndola Health District
Monica Masisani, Ministry of Community Development
Mrs. Rufaro Chirambo, Surveillance Officer/Health District
Mr. Hakoyobe, Deputy Permanent Secretary, Copperbelt Province
Mr. Atya M. Yoyo, Permanent Secretary, Copperbelt Province
Dr. Ernest M. Muyunda, Director, Ndola Health Board
Mary Sieta, Acting Manager Planning/Kitwe Health District
Dorothy Sinkala, Acting Manager Planning Administration/Public Health District.
Hillary Nsungwe Luputa, Clinical Officer/Refugee Health Centre A
Elijah Sikapate, Health Coordinator/Refugee Health Centre A
Andrew Wilson, Project Coordinator, LWF/Zambian Centre Refugee Settlement in Meheba
Lucy Sankulani, ZAMTAN ADP Manager, World Vision/Zambia
Mrs. Ngoma T., Health Centre/Lufwanyama
Mr. Kamanda, ICCO Coordinator
Mr. A. Chapusikwe, Chairman, RHC
Mrs. M. Mwanza, Nurse/Lufwanyama Health Centre
Mr. P. Cheeba, HIO
Mr. Mwanza, MCI-Coordinator
Mr. J. Lungu, Manager Planning
Mrs. G. Phin, DDH
Mrs. Joyce Mulilo, Chairperson, Lufwanyama Development Association
Mr. Goodson Mulilo, President, Lufwanyama Development Association
Mr. Kenny Gondwe, Lufwanyama Women Development Association
L. W. Kalunga, Ag. DDH/Solwezi Province
S. Sishekanu, Manager Administration
Gir. Zingani, NIDs/MCH/EPI Coordinator
W. Mulaliki, ADHIO
E. Samu, PEHT/Ag Manager Planning and Development
Mr. Muranga, Permanent Secretary/Solwezi Province
Kite Health Centre?
Nyirenda Dereck, Junior Health Officer, Solwezi Urban Clinic
Zingane Chimbipa, Solwezi Urban Clinic
Mr. Zoulou, Clerk, Solwezi Urban Clinic
Tchimondola, Head, Refugee Health Centre F/Maheba
Mugangeza, MCH, Refugee Health centre F/Maheba

Central-northern provinces

Dr. Silwamba
Dr. B. U. Shirwa
Dr. Sunkutu
Ms. Muunga
Dr. Limbambala
Clare
Christiana
Ms. Elizabeth Serlimitsos

NID secretariat

Mr. Kambangu, ZIS
Mrs. Masisani
Mr. Zimba, Agriculture
Mr. S. K. Sharma, Rotary

DHMT/Kabwe

Mr. Nbumwae, D.S.
Mr. H. M. Fumbeshi
Mrs. Mwape
Mrs. Matakala
Rev. Chongo

Mahatma Gandhi H/C

One Clinical Officer
One Zambia enrolled nurse

Nakoli H/C

Mrs. Zimba, Nursing Officer
Mr. Bwalya, Environmental Health Technician
Mr. Ngwisha, Head teacher

DHMT/Serenje District

Justin Lupiya Mwashingwele, Senior Pharmacy Technician
Albert Ahiri, Principal Clinical Officer
Josephine K. Hamdi, Nursing Officer
Reymond K. Mweemba, DHIO, District Health Office
Pauline K. Lubemba, CHN/AG Manager Admin.

Annex B: Documents reviewed

"The Effect of Polio Immunization Public Awareness Campaigns on the Rate of Immunization" (survey of four health centres in Kasawa district, Sept./Oct. 1999, by Ms. Nancy Mugala).

"Vaccinator's Guide for Lay Vaccinators," polio and measles vaccination and vitamin A supplementation SNIDs, August 1999.

"Vaccinator's Guide," for 1999 SNIDs and vitamin A supplementation in Zambia.

Field Guides for DHMTs and Health Workers, measles vaccination campaign and vitamin A supplementation SNIDs, Zambia, August 1999.

National Immunization Days, 1998 Report.

"Sustaining the Benefits of Immunization within Zambian Health Reform: A review" (Sept./Oct. 1997, WHO, UNICEF, DANIDA, JICA and USAID/BASICS).

Minutes of meetings

CBOH to discuss issues of strengthening the routine immunization in the districts.
Child health collaborating partners' meeting.

1999 NIDs reports from regions and provinces.